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Security risk management in Norwegian aviation meets nordic traditions of risk management

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ABSTRACT: The risk management systems in the Norwegian aviation sector in the aftermath of 9/11 have been a top down process characterised by rapidity and secrecy and there has been little local and national risk assessment involved during the process. Both the aviation sector and the petroleum sector are technologically based organisational systems and both aspire to be associated with best practises of high reliability. A well known statement is that safety regulations in the petroleum sector are founded on traditional democratic ideals in working life. An important aspect of the Nordic regulation practise of safety has been to take care of the interests of groups and thereby increase personal responsibility concerning the workplace and security. The idea is that involvement and participation increase mission valences, legitimacy and trust and therefore the quality of the regulating regime as such. The paper will highlight differences and similarities between the two systems and discuss whether local participation and stakeholder involvement are necessary prerequisites for successful safety/security management.

1 INTRODUCTION

Both the aviation sector and the petroleum sector are technologically based organisational systems and both aspire to be associated with best practises of high reliability. Traditionally the safety regime on the Norwegian Continental Shelf has been developed and governed by a sophisticated body of laws and regulations coined as the "Nordic model" of Occupational Health and Safety and based on a three-part pillar with the regulator, the employer and the employees/unions as legitimate partners (Karlsen & Lindøe, 2006). It is reasonable to claim that the Nordic Model and the safety system that has developed in the Norwegian oil industry is closely connected. One important result of the Nordic Model was the working environmental act which established that technology has to adjust to human behavior and not the other way around. The traditional Norwegian safety system is thus found in the system-oriented approach where socio-technical design and organizational factors adjusted to how humans act are seen as the dominant factors (Leveson, 2004; Reason, 1997).

The terrorist attacks that took place September 9/11, 2001, demonstrated that the security system, comprising legislation, regulation, and implementation were not adequate to handle an intentional event of this magnitude.The 9/11 attacks caused a major reshuffling in the regulatory system and made it mandatory for all member countries. The convention formed the basis for EU's new frame regulation 2320/2002 which evolved into a detailed, deterministic system aimed at securing civil aviation through a detailed and uniform system for all of the European countries. From the more goal-based way of regulating, the new security regime essentially followed a 'prescriptive' regulatory approach which is based upon mandated compliance (Penny, et al., 2001).

This paper discusse show the security regime in aviation deviates from traditional "Nordic" practises of technological risk management in the petroleum sector. The paper highlights differences and similarities between the two systems and question whether local participation and stakeholder involvements are necessary prerequisites for successful safety/security management.

1.1 *Safety vs. security*

In Norway it is only one common word that covers "safety" and "security", namely "*sikkerhet*" (in german: sicherheit) whereas in English the two terms refer to different types of actions and contexts. In order to conceptually distinguish between the terms "safety" and "security", Cambacedes & Chaudet (2010) have developed a fruitful framework that may serve the purposes of this article. The framework starts with distinguishing between "system" vs. "environment" and "malicious" vs. "accident". The system vs. environment (S-E) distinction refers to where "security is concerned with the risks originating from the environment and potentially

impacting the system whereas safety deals with the risk arising from the system and potentially impacting the environment". The malicious vs. accidental (M-A) distinction refers to where "security typically addresses malicious risks while safety addresses purely accidental risks" (Cambacedes & Chaudet 2010 pp. 59). From this point of departure Cambacedes & Chaudet develop the following matrix in order to place different issues related to safety and security.

In Table 1 the notion "defense" refers to malicious actions and environment to system relations and will thus naturally be connected to intentional actions such as terrorist attacks. "Robustness" is connected to accidental events and will be associated with threats towards physical infrastructure such as natural disasters, floods and earthquakes. When it comes to notions such as "Safeguard" and "Containment ability" they refer to systems that may have unauthorized and disloyal personnel and to whether such systems possess capabilities that sufficiently protect the environment from pollution, emissions etc. "Self-protection" refers to internal procedures in order to protect the organizations from sabotage, criminal acts from the inside, and finally "Reliability" refers to organizational standards and procedures developed to make production and production staff as safe as possible. Standardized safety procedures such as HRO principles, self-regulation and internal control will naturally be connected to this category. According to Table 1 we may therefore conclude that typical security activities are related to "defense", "safeguard" and "self-protection" and typical safety activities are related to "robustness", "containment abilities" and "reliability". However and as underlined by Cambacedes & Chaudet (2010), these sub-notions are less ambiguous then the terms "security" and "safety" but "cover their conceptual domains" (Cambacedes & Chaudet 2010 pp 60).

Different connotations connected to safety and security will affect risk analysis and risk management in industrial systems. As mentioned above, security risks are focused on intentional and malicious actions where the goal is to alter political decisions (Bjørgo 2011). The complex motivations, intentionality and secrecy behind malicious actions constitute a genuine uncertainty that challenges and complicates the risk assessment and risk management strategies. Despite the fact that the terrorist threat in Norway (and in general) is low and characterized by high uncertainty, the security agencies in Norway operate with a probabilistic approach towards possible attacks. According to instruction books developed by Norwegian Police Security Service (PST) and Norwegian National Security Authority (NSM) the risk assessment calculations take into consideration the terrorist intentions, capacity and how they evaluate relevant targets and develop scenarios with certain probabilities. These risk assessments lead further to conclusions that security regulations have to be based on a strategic risk management with focus on intelligence service and worst-case scenarios.[1] The latter implies prescriptive regulations with extensive use of precautionary principles and detailed control systems not very different from those we have experienced in international aviation the last ten years.

Table 1. SEMA referential framework (Cambacedes & Chaudet 2010).

	Environment to system	System to environment	System to system
Malicious	Defense	Safeguard	Self-protection
Accidental	Robustness	Containment ability	Reliability

1.2 *Safety and security regulations in the aviation and petroleum industry*

Before 9/11 the regulatory framework applied for civil aviation in general followed a more goal-based approach. In Norway, the 'Civil Aviation Act' (the national legislation for civil aviation) regulated security. The recommendations from ICAO went through hearings where relevant actors had the possibility to participate and influence in the development of the actual national regulation. This process was normatively set to take three months. This was to assure a minimum standard of openness and transparency in the development of regulations (Nikolaisen, 2008). The goal was thus to achieve an acceptable level of security. ICAO's recommendations were used as guidance and the development and implementation of it was left to national institutions and agencies.

After 9/11 and the implementation of EU's 2320/2002 regulation, the regulatory system changed significantly. From ICAO's recommendations, the system evolved into a detailed regulatory framework that was to assure that all member countries would have a corresponding security system. In Norway, it took form through what has been labelled the 'reference technique' where new regulations from the EU became attached to the existing Civil Aviation Act (Sejersted, Arnesen, Rognstad, Foyn, & Kolstad, 2004). Four open EU regulations are attached to the Norwegian Regulation on the Prevention of Unlawful Acts

[1]http://www.pst.politiet.no/& http://www.nsm.stat.no/.

against the Security of Civil Aviation. However, twelve other EU regulations, applied through the same technique, are classified information and not available for others than authorities, enterprises, companies and persons that have special authorisation to handle this information. The details for how the regulations should be implemented are thoroughly described in Annex 17, which is withdrawn from public openness. Through these changes, it is evident that the regulatory practice for civil aviation security has had a large shift in structure and approach.

In the 1960's and 1970's a lot of changes took place concerning the regulatory regimes of the Norwegian workplace environment (Gustavsen & Hunnius, 1981; Ryggvik, 2007). The main objective of this re-organisation was a shift from a reactive to a proactive ideology, which underlined preventive action where participation and involvement from the employees were important elements. The working environment acts in the Nordic countries were characterised by specified regulations of active participation through formal bodies that were given decision-making authorities and the establishment of safety deputies. An important reason for such a regulation of safety aspects are to take care of the interests of groups that are confronted with asymmetrical power relations e.g the individual workers.

According to the "Nordic model", collective agreements and rights are the basis of how work, including safety, are organised. To a high degree this is the case when it comes to the Norwegian petroleum industry. The laws and established practise in the petroleum industry underline collective agreements and active participation in accordance with the Norwegian Working Environmental Act of 1977. Moreover, it is worth mentioning that the general ideas of the Working environmental act are based on what we earlier have denoted as the "socio-technical model" of organizations. Several important paragraphs of the Act underline that it is the organizational design that shall adapt to the workforce. This was indeed ideologically motivated and was a result of the increased strength of the unions during the seventies (Bjørnhaug et al., 2000).

From a European point of view the Nordic countries when it comes to economic policy, working life and social welfare, has been characterized by similarities more than differences. There are many comparative studies between the Nordic Countries and between the Nordic countries and other European countries that confirm this (Kettunen, 1998). The Nordic tradition was based on three pillars—or as mentioned above, "a trinity of collaboration"—involving employer, employees and the government. Although it was based on centralized agreements about uniform standards of employment conditions, it was open for local adjustments and actions. Job security and optimal working environment was the cornerstone of the model. A common feature within the Nordic OHS regime is the in-house use of an «Occupational Health and Safety Organisation» that offers three different collaborating structures. First, Safety Committees provide opportunities for employer and employees to meet and discuss important issues. Second, there are independent and autonomous «institutions» as Safety Representatives and third, there are a number of experts on occupational health and safety, who may be called upon in disputes, either as an in-house service or external consulting expertise.

In Figure 1 the triangle at the top illustrates the three pillar-model as a framework for the working life; the government, employer and employees. The triangle at the bottom links together the employer, employee and the safety deputy as representative of a collective work force (unions).

These institutions have long historical roots and have been developed through conflicts and negotiations between the government, employers and employees' organizations for over 100 years. The "Nordic model" is thus a working market model consisting of institutional frames organising and regulating negotiations, policy of wealth distribution and conflict solutions. Working conflicts and clashes of interests between the parties are being solved through extensive laws and systems of agreements. Historically speaking, the Nordic Model implied that the employers to a certain extent supported the unions and their professional activities. Moreover, the employers have several times been forced to deemphasise their short term

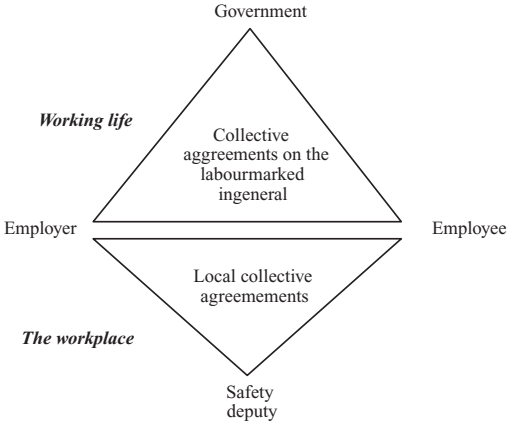

Figure 1. Three pillar-agreements of the Nordic model (Lindøe & Engen 2009).

profit goal in advance of more long term managerial objectives. The success of this policy may be explained by the strength of the unions, the strong integration of the unions as negotiators and finally, the national and local deliberal political processes.

The Nordic model has opened up for socio-technical approaches when concerned with risk and risk management in uncertain and complex situations. The principles of MTO and HRO have been gradually introduced in response to severe incidents and accidents (most significantly after the Alexander Kielland Disaster)—which when happened—shocked prevailing institutional and organisational regulatory practices of the oil industry. Risk management has been developed in the intersection between the political system and the relevant operating organisations. To large extent governance structures have influenced organisational strategies, management decisions, safety culture and risk management. Transparency, participation and deliberative democracy are underlying ideological principles in the Nordic Model and the "model" offers clear recommendations on how safety ought to be governed, managed and organised.

The Norwegian petroleum sector has never been exposed to intentional attacks or sabotage that has escalated into a disaster. Also on a global level research shows that terrorist attacks seldom hit the petroleum industry. The risk governance and risk management strategies have thus been almost unambiguously organized in order to built up a sophisticated and efficient safety regime. The development of a well functioning security regulation framework has according to security responsible personnel within the oil companies been de-emphasised in advantage of the safety regime. Despite some initiatives from Norwegian Oil Industries Association (OLF) the security framework within the companies is premature and lacks sufficient competence and resources.[2] Recent studies on security regulations in the Norwegian Petroleum industry report of lack of experience with security related events and how the safety regime historically has occupied most of the resources (Stornes 2011).

The fact that safety dominates the petroleum sector worries those who work with security related issues onshore and offshore. According to Stornes (2011) the security regime in Statoil is too much goal based and thus similar to the routines and procedures of the safety system. According to the study made by Stornes (2011) there is a need for strengthening the risk analysis procedures related to security and to improve procedures of the security regime. The latter also implies developing the expertise of governmental agencies on industrial security and implementation of a detailed and prescriptive regulatory framework. Advocates of the security regime in Statoil want to free themselves from the safety regime and develop their own managerial procedures on how to regulate risk. In general this means to move from a goal based to a prescriptive regime—with extensive control.

1.3 *Aviation security vs. petroleum safety*

The security regime in aviation post 9/11 has been characterized through concepts such as secrecy, rapidity, and reactivity. The fact, as mentioned above, that twelve of 16 regulations are classified demonstrates the dimension of secrecy. Reports from the Ministry of Transportation have explained that few of the changes in security regulation go through hearings. Because the regulatory system has been moved from the national level (pre 9/11) to the supra-national level (post 9/11), there is in effect very little preparation that actually take place in Norway. In the developing of security regulation, work groups consisting of various agents are compiled in Brussels where the complete regulation will be prepared, worked through, and implemented after voting. The regulation then arrives through the Ministry of Transportation to the Civil Aviation Authority. This will then be translated and distributed to the airports with an expiry date for implementation. Some of the information arriving from the EU is so secret that only a handful of people have the clearance to see it.

The "Nordic model" of safety regulation has a system approach where the main objective is to minimise "unsafe acts" and to reduce risk exposing for the individuals. To prevent "unsafe acts" and accidents thus implies to change the technical and organisational conditions prior of human behaviour. The robustness of the model requires or predicts a certain acknowledgment of the values behind, both regarding the regulatory regime and safety management system where collective rights are vital elements. In fact, top down prescriptive regulative system enforce disintegration and undermine the basic principles behind safety principles in the Nordic model. In Norway as well as in other European countries there has been a decline in inter-collaboration during the 1990s which caused a gradual fragmentation of the collective rights. Quite contrary to earlier periods, the 1990s has been a decade with strong influence from individual interests and rights promoting intrinsic principles and global "tools" of safety and security management systems rather than adapting national standards on safety regulation. This challenges the collective rights embedded in the Nordic OHS model of Occupational Health

[2]OLF Guideline 104.

Table 2. Safety vs. security in different regulatory settings.

Safety	Security
• Goal based	• Prescriptive
• Participatory	• Elitist
• Bottom up	• Top down

and Safety and safety management systems based on integrating social, technical and organisational issues (MTO).

Table 2 sums up our discussion so far.

The safety regimes in aviation and the Norwegian petroleum industry have been constituted by a goal based regulatory system accompanied by participatory processes where the unions have played a leading and dominating role. In the safety regimes within the petroleum sector there have however been attempts to undermine the system by introducing more prescriptive procedures and detailed control with workers behaviour (Lindøe & Engen 2008). The security system that has developed in aviation is typically prescriptive by nature, and also elitist by the fact that very few participate in the decision making processes and where there is secrecy about the motives and reasons of the regulations. Such regulatory traits are found both in the petroleum industry and in aviation. Even though the relative importance of security is far less in the petroleum sector than in aviation, it seems that the security agents in petroleum prefer a movement towards a more prescriptive and elitist system. In aviation on the other hand, the revealed preferences are to reduce the prescriptive character and open up for a more goal based and flexible system (Olsvik 2010). It is however important to underline that the safety and security regimes in both sectors are under constant revisions and our analysis only intends to describe movements on a general level.

2 DISCUSSION: RISK GOVERNANCE, SAFETY AND SECURITY

The questions in the paper may be reformulated as follows: First, are security regulations compatible with principles of collective agreements constituting the foundation of the Nordic model and explicitly expressed in the regulation regimes? Second, are security regulations compatible with the socio-technical premises embedded in the risk regulating model?

By withdrawing the openness in the process of regulatory development there is no way to ensure that the different groups and agents affected by the regulation will have any influence. As the EU appoints committees that consist of mixed backgrounds and expertise, it may be asserted that the process of regulatory development at least appears as semi-democratic. By comparing it to the previous system, in this case the Norwegian civil aviation system, where the demand for openness and involvement were met at a national level, the current system may be labeled as somewhat elitist. The rapidity trait is closely knit to the secrecy trait because rapidity excludes wide involvement and excludes many from the information loop. In Norway, pre 9/11, there was a time span of 3 months before any changes were made in the Civil Aviation Act. This opened up for a wider involvement of stakeholders and proposals were arranged as hearings and sent round for comments. This would ensure that as many of the affected parties as possible had the opportunity to influence. As Norway in practice is obliged to follow EU regulation through the EEA agreement, the traditional approach to implementation of regulation has in effect disappeared. Data from the Ministry of Transportation report that the expiry date on arriving regulations complicate wide involvement, but as the regulation is already set in the EU, there is in practice few possibilities for changing it. The reactivity trait also has some apparent challenges because it bases regulation on previous incidents. The obvious limitation is that in the case of something unexpected, the current system may not be able to catch a possible attack if it deviates too much in its appearance from previous attacks.

Renn (2008) proposes fundamental principles for governing risk and of "good governance". The Risk Governance Framework has an ambition of being an "*integrated analytic framework for risk governance which provides guidance for the development of comprehensive assessment and management strategies to cope with risks, in particular at the global level*" (Renn, 2008, p. 11). The framework consists of a combination of positivistic and relativistic traditions and looks at how risk-related decision-making processes unfold when a range of actors are involved, as is the case in the European aviation sector as well as the petroleum sector. Renn (2008) also states that it is important to include the historical and legal background, guiding systems, value systems and perceptions when governing risk. The framework proposes a new categorisation of risk based on different states of knowledge of the various risks in society. The categories are: *simple*, *complex* and *ambiguous* risk problems and are dependent on (a) if it is possible to establish cause-effect relationship and (b) if there are differences in how the public are defining values and what kind of reaction is appropriate to handle the different types of risk.

The decision process involved in how to address a particular risk problem includes what and whom to involve and what to do and how to make selections. This risk governance model advocates the belief of inclusive governance when dealing with global and systematic risks. Political, business, scientific, and civil society players should contribute in the process of framing the problem, generating options, evaluating options and coming to a joint conclusion. Diverse risk problems require different amounts of stakeholder involvement. The more complex and controversial, the more involvement is required to manage risks. Ordinary and traditional risk problems (simple) are usually best handled using an instrumental discourse among agency staff, directly affected groups and enforcement personnel. On the other hand, when there is considerable uncertainty and disputes about values or consequences, it is convenient to arrange debates in a participative discourse.

The "risk governance model" is based on a concept of "deliberative democracy" where transparency and openness are the basic requirements in an international society when confronted with complex and uncertain risk classes. International terrorism is a complex and highly uncertain phenomena, and in contrast with, for example, natural disasters, accidents in high technological systems, and pandemics, terror attacks are caused by intentional actions. Terrorists are people who employ all their energy trying to break security barriers and who in worst case manage to kill large amounts of people. This outlines the dilemma of security because a transparent regulatory regime is also transparent for those who want to break it. Although this may be an obstacle to openness and transparency it does not exclude it. Accordingly, the character of security as we have defined it is not compatible with the ideal principles of the risk governance framework.

In the risk governance framework it is essential to identify the risk problem or problems inherent in the socio-technical system in order to develop (eventually understand) regulatory measures and the degree of stakeholder involvement that should be implemented in the regulatory scheme. Looking at the different characteristics of risk problems in Renn's (2005)model, the framework suggests an instrumental process driven by the agencies/industry responsible if the risk problem is simple. On the opposite side of the scale, ambiguity-induced risk problems should be prepared and implemented by a wide involvement of both stakeholders and the general public, joining agency/industry management and experts/scientists in the discourse in order to survey the different cultures, values and opinions in the society where the regulation should be implemented. Handling risks in the "Nordic Model" may thus be characterised as "ambiguity induced". Such an institutional setting will confront sloppy and ignorant attitudes at local levels and challenge the actors' attitude towards responsibility. However, this form of regulative practise, accounting for social and cultural values when designing and implementing new routines and procedures, require less responsibility aversion by the actors involved. Accordingly, rules and procedures with local involvement gain greater legitimacy among the participants but also demand a higher willingness to take responsibility for security. Accordingly, the ideal principles of the safety regimes in the petroleum sector satisfy all basic principles of the Risk governance framework.

Another dimension is the level of governance. Following theory, one level of governance will influence on the possibility to govern in other levels. Accordingly, we argue that risk governance enforced on one level (e.g. EU) will exclude the possibility to govern risk on lower levels of a regulatory regime (e.g. national agencies). Thus, when a socio-technical systemis governed on a supranational level, applying an instrumental approach such as we have identified in EU aviation security implementations, governance on this level will 'lock' the involvement from stakeholders, interest groups and the general public at national and local industry levels. The democratic and local aspects of the model will thus be challenged and even violated.

3 CONCLUSION

The security challenges both facing the petroleum industry and the aviation sector have shown that traditional participatory ideal and socio-technical approaches are not appropriate with dealing with terrorist threat. As the risk problems of any socio-technical system are ambiguity induced we are faced with a discrepancy between risk governance theory and regulatory practice. Ideally, following the Risk Governance Framework (Renn, 2005), knowledge and considerations concerning the social and political contexts should be an important factor when governing security risks. However, it leads us to remind ourselves what contextual factors that explain why a top down instrumental regulatory regime has been developed. Actions taken after 9/11 have challenged democratic values worldwide where "war against terror" exclusively has been based on military premises. Following the definitions of safety and security there are arguments in favor of also dividing the organizational instruments. However, and as underlined by Cambacedes & Chaudet (2010), there may be more to win by searching for how these two concepts may mutual benefit from each other than building up two incompatible regimes.

REFERENCES

Bjørgo, Tore. (2011). *Strategier for forebyggingavterrorisme* (Strategies preventing terrorism) Unpublished manuscript, The Norwegian Police University College, Oslo.

Bjørnhaug, I., Bjørnson, Ø., Halvorsen, T., Ågotnes, HJ. (2000). I rettferdighetens navn. LO 100 år. Historiske blikk på fagbevegelsens meningsbrytninger og veivalg. Akribe.

Cambacedes & Chaudet. (2010). The SEMA referential fram work. Avoiding ambiguities in the terms "security" and "safety" in *International Journal of Critical Infrastructure Protection.* Vol. 3, 55–66.

Frederickson, H.G. & LaPorte, T.R. (2002). Airport Security, High Reliability, and the Problem of Rationality. *Public Aministration Review,* 62(4), 33–43.

Gustavsen, B. & Hunnius, G. (1981). *New patterns of work re form: the case of Norway.* Oslo: Universitetsforlaget.

Karlsen, J.E. & Lindøe, P.H. (2006). The Nordic OHS Model at a Turning Point? *Policy and Practice in Health and Safety*.

Kettunen, P. (1998). Globalisation and the Criteria of "Us"—A Historical Perspective on the Discussion on the Nordic Model and New Challenges. In D. Felming, P. Kettunen, H. Søborg & C. Thörnqvist (Eds.). *Global Redefining of Working Life.* København: Nordic Council of Ministers.

Krause et al. (1984). Behavioural science applied to accident prevention. Professional safety 29, 21–27.

LaPoarte, T.R. & Thomas, C.W. (1995). Regulatory Compliance and the Ethos of Quality Enhancement: Surprises in Nuclear Power Plant Operations. *Journal of Public Administration Research and Theory,* 5(1), 109–137.

Leveson, N. (2004). A New accident Model for Engineering Safer Systems. *Safety Science,* 42(4), 230–270.

Lindøe, P. & Engen, O.A. (2009). In *Risk Reliability & Societal Safety* eds. Aven, Terje & Vinnem, Jan Erik 2007. Taylor & Francis Group. London 2007.

Nikolaisen, T. (2008). *Norwegian aviation security regulation post 9/11: why are there still conflicts?* T. Nikolaisen, Stavanger.

Olsvik, Elise Anonby. (2010). *Security challenges in the civil aviation system. Vigilance and mindfulness as security barriers*. Paper TIEMS.

Penny, J., Eaton, A.,Bishop, P. & Bloomfield, R. (2001). The Practicalities of Goal-Based Safety Regulation. *Ninth Safety-critical Systems Symposium* 35–48.

Power, M. (2004). The risk management of everything: rethinking the politics of uncertainty. London: Demos.

Reason, J. (1997). *Managing the risks of organizational accidents.* Aldershot: Ashgate.

Renn, O. (2005). White Paper on Risk Governance. An Integrative Approach. *IRGC.*

Renn, O. (2008). *Risk governance: coping with uncertainty in a complex world*. London: Earthscan.

Rochlin, G.I. (1999). Safe operation as a social construct. *Ergonomics,* 42(11), 1549–1560.

Ryggvik, H. (2007). Behaviour Based Safety—an historical overview. In R. Tinmannsvik (Ed.). Trondheim: *Robust ar* beidspraksis. Tapir.

Sejersted, F., Arnesen, F., Rognstad, O.A., Foyn, S. & Kol stad, O. (2004). *EØS Rett.* Oslo, Universitetsforlaget.

Stornes, J. (2011). *Petroleumssektorens security regime*. (the security regime in the Norwegian Petroleum sector). Unpub lished manuscript. University of Stavanger, Norway.